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RESEARCH

Barriers That Impede the Provision of Pain Care to Neonates by Nurses in Jordan

Nadin M. Abdel Razeq

Correspondence
Nadin M. Abdel Razeq, PhD, RN, School of Nursing, University of Jordan, Queen Rania St. – 11942, Amman, Jordan.
n.abdelrazeq@ju.edu.jo

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ABSTRACT

Objective: To describe perceived barriers to neonatal pain care and suggest strategies to overcome these barriers among NICU nurses in Jordan.

Design: Descriptive study.

Setting: Eighteen NICUs in Jordan.

Participants: One hundred eighty-four neonatal nurses.

Methods: Nurses completed a questionnaire on perceived barriers to neonatal pain care. Descriptive statistics were used to analyze the data.

Results: One of the main issues that hindered the effective practice of neonatal pain care was the underuse of structured pain measurements, especially for painful procedures (72%). Furthermore, participants indicated minimal knowledge about pain medication for neonates (66%) and feared adverse effects (50%). The participants received inadequate training about neonatal pain care during their initial orientation (24%) and while in service (19%). Participants perceived low interprofessional appreciation of any input into pain care decisions (72%). Finally, only 39% of participants supported the involvement of parents in pain care for their neonates, and 82% were against it during painful procedures.

Conclusion: Efforts to improve neonatal pain care should focus on improving nurses' knowledge about neonatal pain, increasing competencies and involvement in pain management options, and improving channels of professional communication about neonatal pain.

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Nadin M. Abdel Razeq, PhD, RN, is an assistant professor of pediatric nursing, University of Jordan, Amman, Jordan.

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Incongruity still exists among knowledge, evidence, and practice with regard to pain assessment and management for neonates, despite an increase in evidence and published guidelines relative to this population (Cong, Delaney, & Vazquez, 2013). Latimer, Johnston, Ritchie, Clarke, and Gilin (2009) found that many nurses accurately identified evidence-based pain care for specific painful procedures, yet only a small number actually translated this knowledge into practice. Although written guidelines for pain management can and do positively improve pain care in neonates (Gharavi, Schott, Nelle, Reiter, & Linderkamp, 2007), the practice informed by such guidelines was inconsistent and inadequate worldwide (Foster et al., 2013; Latimer et al., 2009; Ozawa & Yokoo, 2013).

Many factors influence the delivery of evidence-based pain care for neonates. Latimer et al. (2009) proposed the interplay of neonatal, individual nurse, and organizational factors to determine the level of implementation of evidence-based guidelines. Research findings showed that NICUs with high levels of neonatal acuity and care; large numbers of nurses, intensive care beds, and admissions; and consistency in nurse assignments were associated with increased use of evidence-based pain care guidelines (Foster et al., 2013; Latimer et al., 2009; Lago et al., 2013). Likewise, adequate training, use of appropriate and accurate pain assessment scales, and use of clear, research-based protocols contributed to improved neonatal pain care (Cong et al., 2013). Nurse–physician collaboration has frequently been reported as a key in the facilitation of effective pain care for neonates (Latimer et al., 2009; Ozawa & Yokoo, 2013; Stevens et al., 2011). On the other hand, lack of knowledge, resistance to change by nurses and physicians, fear of potential

Factors that influence effective neonatal pain care practices should be investigated to close the evidence–practice gap and improve the pain assessment and management of neonates.

adverse effects of pain medication, incorrect interpretation of pain signals, lack of time, and lack of trust in pain assessment tools were perceived as barriers to effective pain management (Cong et al., 2013).

Too few studies on barriers to pain care for neonates have been conducted to generalize findings, and there is little known about this complex issue in many developing countries. My purpose in this descriptive cross-sectional study was to examine this issue in a developing nation, specifically the perceived barriers that impede pain assessment and management among neonatal nurses in Jordan. The identification of such barriers is critical to facilitate nurses' attempts to alleviate neonatal pain effectively.

Methods

Design, Setting, and Participants

The findings reported here were part of a larger descriptive quantitative study in which researchers described neonatal pain care practices among health care professionals in Jordan. The goal was to collect information from all possible neonatal nurses who worked in high-volume NICUs. The research was focused on hospitals located in Amman and nearby North Region provinces; it was not feasible to collect data from the entire country. Nineteen hospitals were initially selected as eligible to participate. One hospital was excluded because of delayed approval and failure to return completed questionnaires by the end of the planned data collection period. Fourteen NICUs were located in Amman, and four were located in four cities in northern Jordan.

An educational institution provided ethical approval for the study, and the required institutional review board approvals were obtained. All registered nurses, with the inclusion of the unit managers who worked in the selected NICUs, were invited to participate, regardless of duration of nursing experience. A total of 240 neonatal nurses were asked to complete a structured self-report questionnaire designed to identify perceived barriers to pain care practices with neonatal patients.

The self-report questionnaire consisted of three parts: (a) a first page with study information and an invitation to participate voluntarily, (b) a page requesting demographic data that did not include the respondent's name or institutional affiliation, and (c) the self-report questionnaire. The questionnaire used to describe perceived barriers to pain care was adapted with permission from Byrd, Gonzales, and Parsons (2009). The original questionnaire was used to assess perceived barriers to neonatal pain management among NICU nurses in the United States. The questionnaire consisted of 36 items: nurses were asked to indicate their level of agreement with 12 Likert scale items that ranged from 1 (*strongly disagree*) to 5 (*strongly agree*) and 24 Likert scale items that ranged from 1 (*never*) to 5 (*always*).

The guidelines of Beaton, Bombardier, Guillemin, and Ferraz (2000) for translation, back-translation, and cultural adaptation of self-report instruments were used. The questionnaire contained items translated into Arabic after speech patterns unique to Jordan were accounted for. A group of experienced neonatal nurses, including the primary investigator, reviewed the adapted and translated questions for face validity and terminology. Reliability and validity of the initial questionnaire was addressed in the original study (Byrd et al., 2009). The internal consistency reliability of the questionnaire in the present study was 0.82 for the 36 items.

An announcement that described the study and the study instructions was posted in the participating NICUs. The self-report questionnaires were distributed with sealable envelopes by the primary investigator and were collected through collaboration with the unit managers of each NICU. Voluntary participation in the study was addressed in writing on the first page of the questionnaire and verbally during initial face-to-face contact. The nurses who agreed to complete the questionnaire took up to 2 weeks to return them. No incentives were offered. Nurses who declined to complete the questionnaire, regardless of the reason, were not penalized. To ensure anonymity, the completed questionnaires were placed in the supplied envelopes, sealed by the nurses, and returned to the unit managers.

Data Analysis

Data were analyzed with Statistical Package for Social Sciences for Windows (version 21). Before they conducted the analysis, the primary investigator and a research assistant verified the